What is claimed is:

1. A method of confering an immune response to a tumor cell in a mammal, comprising administering to said mammal an antibody which binds to aspartyl (asparaginyl) beta hydroxylase (HAAH).

2. The method of claim 1, wherein said tumor cell is a brain tumor cell.

3. The method of claim 2, wherein said brain tumor cell is selected from the group consisting of a glioma, a glioblastoma, an astrocytoma, and a hemangioma.

4. The method of claim 1, wherein said tumor cell is a pancreatic carcinoma cell.

5. The method of claim 1, wherein said antibody binds to an extracellular domain of HAAH.

6. The method of claim 1, wherein said antibody binds to a catalytic domain of HAAH.

7. The method of claim 6, wherein said catalytic domain comprises amino acids 660-700 of SEQ ID NO:2.

8. The method of claim 1, wherein said antibody is FB50 or a fragment thereof.

9. The method of claim 1, wherein said antibody is selected from the group consisting of FB50, 86A, 5C7 and 19B.

10. The method of claim 1, wherein said antibody is a mixture of one or more antibodies selected from the group consisting of FB50, 86A, 5C7 and 19B.

11. The method of claim 1, wherein said antibody is a high affinity single chain antibody.

12. A method of inhibiting tumor growth in a mammal, comprising administering to said mammal an HAAH-binding antibody conjugated to a cytotoxic agent.

13. A method of inducing an HAAH-specific immune response in a mammal, comprising administering to said mammal an HAAH polypeptide.

14. The method of claim 13, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO:2.

15. The method of claim 13, wherein said polypeptide comprises an extracellular domain of HAAH and lacks an intracellular domain of HAAH.

16. The method of claim 13, wherein said polypeptide comprises a catalytic domain of HAAH.

17. The method of claim 16, wherein said polypeptide comprises amino acids 650-700 of SEQ ID NO:2.

18. The method of claim 13, further comprising administering an adjuvant composition.

19. A method of inducing an HAAH-specific immune response in a mammal, comprising administering to said mammal a polynucleotide composition encoding an HAAH polypeptide, or a degenerate variant of said polynucleotide.

20. The method of claim 19, wherein said composition comprises a transfection-enhancing agent.

21. The method of claim 19, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO:2.

22. The method of claim 19, wherein said polypeptide comprises an extracellular domain of HAAH and lacks an intracellular domain of HAAH.

23. The method of claim 19, wherein said polypeptide comprises a catalytic domain of HAAH.

24. The method of claim 23, wherein said polypeptide comprises amino acids 650-700 of SEQ ID NO:2.

25. A method for diagnosing a neoplasm in a mammal, comprising contacting a tissue of said mammal with a detectably-labeled antibody which binds to HAAH, wherein an increase in the level of antibody binding at a tissue site compared to the level of binding to a normal nonneoplastic tissue indicates the presence of a neoplasm at said tissue site.

26. The method of claim 25, wherein said antibody is labeled with a radioactive compound.

27. The method of claim 26, wherein said radioactive compound is selected from the group consisting of ^{125}I, ^{99}Tc.

28. The method of claim 25, wherein said antibody is labeled with Gd^{+++} or Fe^{++}.

29. The method of claim 25, wherein said antibody is labeled with a colorimetric agent.

30. The method of claim 25, wherein said tissue is a lymphoid tissue.

31. A fragment of HAAH comprising an extracellular domain and lacking a cytoplasmic domain of said HAAH.

32. A fragment of HAAH, wherein said fragment lacks residues 660-758 of SEQ ID NO:2.

33. A fragment of HAAH, wherein said fragment lacks residues 679-697 of SEQ ID NO:2.

34. A fragment of HAAH, wherein said fragment lacks at least one residue of SEQ ID NO:2, wherein said residue is selected from the group consisting of residue 661, 662, 663, 670, 671, 672, and 673.

35. An antibody or fragment thereof, which binds to HAAH, wherein said antibody is selected from the group consisting of FB50, 86A, 5C7 and 19B.

36. An antibody or HAAH-binding fragment thereof, wherein said antibody binds to a polypeptide comprising the amino acid sequence of NPVEDS (residues 286-291 of SEQ ID NO:2).

37. An antibody or HAAH-binding fragment thereof, wherein said antibody binds to a polypeptide comprising the amino acid sequence of QPWWTPK (residues 573-579 of SEQ ID NO:2).

38. An antibody or HAAH-binding fragment thereof, wherein said antibody binds to a polypeptide comprising the amino acid sequence of LPEDENLR (residues 613-620 of SEQ ID NO:2).

39. A kit for detecting a tumor cell, comprising an antibody, or fragment thereof, which binds to HAAH.

40. The kit of claim 39, further comprising a means for detecting binding of said antibody to said tumor cell.

41. The kit of claim 40, wherein said means is a detectable marker.

42. The kit of claim 41, wherein said detectable marker is a radioactive compound.

43. The kit of claim 41, wherein said detectable marker is Gd^{+++} or Fe^{++}.

44. A hybridoma cell line selected from the group consisting of hybridoma FB501, hybridoma HA386A, hybridoma HA15C7A, and hybridoma HA219B.

45. A fragment of HAAH, wherein said fragment lacks enzymatic activity.

46. A fragment of HAAH, wherein said fragment lacks an alpha-ketoglutarate binding domain and an EGF-like domain.